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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,808	02/27/2004	Michael D. Smith	418268002US	5627
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EXAMINER				
WANG, HARRIS C				
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2439				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/789,808

**Applicant(s)**

SMITH ET AL.

**Examiner**

HARRIS C. WANG

**Art Unit**

2439

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 8, 9, 12, 14-19, 29 and 32-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 8, 9, 12 and 14-19 is/are allowed.
- 6) ☐ Claim(s) 29, 32-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/05/2008 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 29, 32-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Briscoe.

Regarding Claims 29, 32-33,

Briscoe teaches a method for providing services requested by a service consumer so that a service provider can demonstrate it provided the requested services, the method comprising:

receiving from a service intermediary an indication that the service consumer has registered to request services of the service consumer and an end code; (*"the user may be issued with the secret random number by a bank. This forms the beginning of the hash chain" Column 1, lines 63-64*) (*"The value at the end of the resulting hash chain is communicated to the vendor" Column 6, lines 27-29*)

receiving requests for services from the service consumer, the requests including a code; when it can be determined that the end code can be derived from the code included from the request, providing the requested service; wherein the service provider determines whether the end code can be derived from a code included in a request by applying a function to the code included in the request, where it is inherent that a hash chain uses a one-way function. wherein a code generated by applying the function is compared to a code previously sent by the service consumer wherein the code previously sent is the last code received from the service consumer. (*"for example, three units are required, then the payment module communicates to vendor the hash value which is three steps back in the hash chain from the current end value...The transaction module at the vendor receives this has value, checks that three further hashes result in the previous end hash value, if so stores the new end hash value in data store and supplies the goods" Column 6, lines 52-28*)

and providing to the service intermediary a code included in a request to demonstrate that the service provider provided requested services to the service

consumer. (*"The vendor validates this value by returning it to the issuing bank...The bank confirms to the vendor the validity of the value. Then if the user wants to transfer, for example, three units of value, it communicates to the vendor the hash value three steps back along the hash chain"* Column 2, lines 8-16)

Regarding Claim 34,

Briscoe teaches a computer system for requesting a service provider to provide services, comprising:

a component that generates a sequence of codes that includes a start code and an end code using a one-way function; (*"the coin stick issue module operates on this value z0 with a hash function to produce a hash value z1, operates on z1...to produce a further hash value z2 and so on. The processing with the hash function is iterated a predetermined number of times...and the resulting value zm is issued to the client"* Column 5, lines 27-36)

a component that registers with a service intermediary that a service consumer will request the service provider to provide services, the registering including providing to the service intermediary a terminal code of the sequence and an identification of the service provider; (*"The transaction module in the vendor calculates the total price of the requested pages...and requests prepayment of this value from the client into its payment interface...The payment module in the client...it calculates the number of iterations made unnecessary by the first payment"* Column 13-25) The Examiner interprets the agreed upon length as the number of micropayments necessary.

and a component that sends to the service provider requests for services and a code of the sequence of codes in reverse order of generation so that the service provider can use the codes to demonstrate that the service consumer requested services. (*"Subsequent requests for goods then require the payment module to calculate the number of units of the coin stick denomination which are required to match the required price. For example, three units are required, then the payment module communicates to the vendor the hash value which is three steps back in the hash chain from the current end value...The transaction module at the vendor receives this hash value, checks that three further hashes result in the previous end hash value, if so stores the new end hash value in data store and supplies the goods"* Column 6, lines 49-28)

Regarding Claim 35,

Briscoe teaches the computer system of claim 34 wherein the codes are sent starting with the penultimate code of the sequence. (*"The value  $z_{m+n-p}$  at the end of the resulting hash chain is communicated to the vendor"* Column 6, lines 29-30)

Regarding Claims 36-38,

Briscoe teaches the computer system of claim 34 wherein the service provider receives the end code from the service intermediary and when the service provider receives a request from a service consumer, it verifies whether the end code can be

derived from the code of the request. wherein the service provider provides the requested service only after it can be verified that the end code can be derived from the code of the request. *("for example, three units are required, then the payment module communicates to vendor the hash value which is three steps back in the hash chain from the current end value...The transaction module at the vendor receives this has value, checks that three further hashes result in the previous end hash value, if so stores the new end hash value in data store and supplies the goods" Column 6, lines 52-28)*

wherein the service provider provides to the service intermediary a code provided in a service request to demonstrate that the service consumer requested a service. *("The vendor validates this value by returning it to the issuing bank...The bank confirms to the vendor the validity of the value. Then if the user wants to transfer, for example, three units of value, it communicates to the vendor the hash value three steps back along the hash chain" Column 2, lines 8-16)*

Regarding Claim 39,

Briscoe teaches the computer system of claim 34 wherein the service intermediary stores the terminal code and provides an end code to service provider. *("the user may be issued with the secret random number by a bank. This forms the beginning of the hash chain" Column 1, lines 63-64) ("The value at the end of the resulting has chain is communicated to the vendor" Column 6, lines 27-29)*

Regarding Claim 40,

Briscoe teaches the computer system of claim 34 wherein when the service intermediary receives an indication that the service consumer disputes that the service provider provided the service that the service provider alleges it provided, the service intermediary resolves the dispute. (*"If at any time the bank says the stick is valid, but the vendor tells the client it isn't, even though the broker has taken a coin off the stick, the client ahs redress because it can prove the broker said it was valid"* Column 5, lines 5-10)

***Allowable Subject Matter***

Claims 1-3, 8-9, 12, 14-19 are allowed.

The prior art of record either taken alone or in combination does not teach "generating by the service consumer a start code and a sequence of codes starting with the start code and ending with an end code, each code being generated by applying a function to the previously generated code, the codes being generated in a forward order from the start code to the end code; registering with the service intermediary an indication of an end code of the service consumer and an identification of the service provider wherein the intermediary provides the end code to the service provider; when the service consumer requests the service provider to provide services, providing by the service consumer to the service provider the generated codes in reverse order of generation such that the service consumer only provides the next code in reverse order when a prior requested service has been provided by the service provider; when the

service provider can verify that the end code can be derived from the code provided with a request, providing the requested service to the service consumer; providing by the service consumer to the service intermediary an indication of a consumer last code provided by the service consumer to the service provider, providing by the service provider to the service intermediary an indication of a provider last code provided by the service consumer to the service intermediary, when the service intermediary determines that the consumer last code and the provider last code are the same, indicating that evidence has been provided that the requested service was provided and when the service intermediary determines that the consumer last code and the provider last code are not the same, applying the function to the provider last code to determine whether the end code can be generated; when the end code can be generated, indicating that the service provider has provided evidence that the requested service was provided and thus establishing that the consumer last code was not the actual last code provided to the service provider or establishing that the provider last code was not the actual last code provided to the service provider by the service consumer; and when the end code cannot be generated, indicating that the service provider has not provided evidence that the requested service was provided and thus establishing that the provider last code was not a code provided in a request to the service provider by the service consumer such that the service provider verified that the end code can be derived from the provider last code." The remaining allowable claims are dependent on Claim 1 and are allowable for at least the same rationale.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HARRIS C. WANG whose telephone number is (571)270-1462. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KAMBIZ ZAND can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harris C Wang/  
Examiner, Art Unit 2439

/Kambiz Zand/  
Supervisory Patent Examiner, Art Unit 2434

